

isc N-Channel MOSFET Transistor

IRF740

• FEATURES

- Drain Source Voltage-
: $V_{DSS} = 400V(\text{Min})$
- Static Drain-Source On-Resistance
: $R_{DS(on)} = 0.55 \Omega (\text{Max})$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

• DESCRIPTION

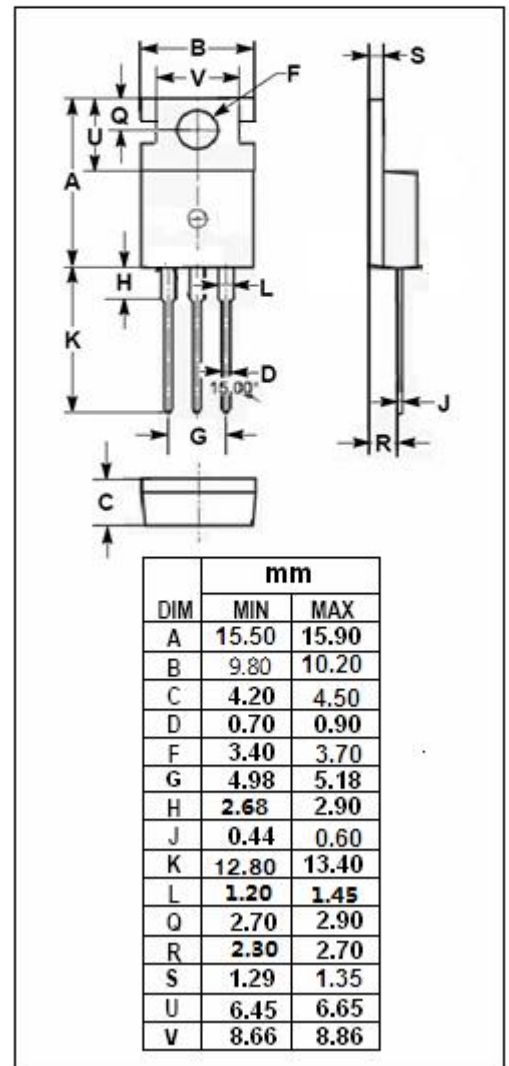
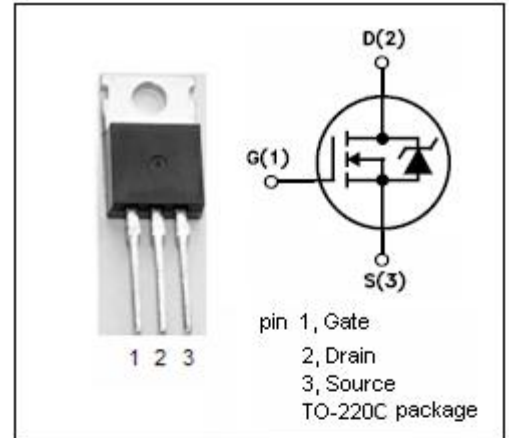
- Switch mode power supply
- Uninterruptable power supply
- High speed power switching

• ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage ($V_{GS}=0$)	400	V
V_{GS}	Gate-Source Voltage	± 30	V
I_D	Drain Current-continuous@ $TC=25^\circ\text{C}$	10	A
I_{DM}	Drain Current-Single Pulsed	40	A
P_{tot}	Total Dissipation@ $TC=25^\circ\text{C}$	125	W
T_j	Max. Operating Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ\text{C/W}$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	62	$^\circ\text{C/W}$



isc N-Channel MOSFET Transistor**IRF740****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYPE	MAX	UNIT
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0; I_D=0.25\text{mA}$	400			V
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS}=V_{GS}; I_D=0.25\text{mA}$	2.0		4.0	V
V_{SD}	Diode Forward On-voltage	$I_S=10\text{A}; V_{GS}=0$			2.0	V
$R_{DS(on)}$	Drain-Source On-Resistance	$V_{GS}=10\text{V}; I_D=6\text{A}$			0.55	Ω
I_{GSS}	Gate-Body Leakage Current	$V_{GS}=\pm 30\text{V}; V_{DS}=0$			± 100	nA
I_{DSS}	Zero Gate Voltage Drain Current	$V_{DS}=400\text{V}; V_{GS}=0$			25	μA

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